MCD-1000

OPERATION & INSTALLATION

MANUAL

muzak

The **MCD-1000** is a four-hour, continuous play CD player with a built-in 25-watt amplifier.

CONTINUOUS MUSIC The single disc tray-type drive mechanism plays Muzak's specially formatted CDs, so you'll enjoy four hours of uninterrupted music. The disc will continuously repeat until you're ready to change discs. The player is equipped with a **volume** control and push-buttons for **play**/**stop**, **forward** and **back**. It also contains an accessory slot for a Bose* equalizer or other signal processing module.

PERFECT FOR BUSINESSES This CD player is designed for commercial environments, with a four-track format and status LEDs (light emitting diodes) indicating **power**, **play** and **shuffle** modes.

BUILT-IN AMPLIFICATION The MCD-1000 features a built-in 25-watt amplifier, eliminating the need and cost of a separate amplifier. If extra amplification is required, this player allows you to connect a separate mono or stereo amplifier that fits your needs.

NATIONWIDE SALES & SUPPORT Best of all, it's from Muzak! That means your discs will carry only superior quality business music, programmed to attract customers and increase sales. Plus, you'll have the ongoing support of Muzak's nationwide sales and service network.

Muzak — creating experiences with audio architecture.

*Bose is a registered trademark of the Bose Corporation.

table of contents

1 SPECIFICATIONS

2 INSTALLATION/SAFETY INSTRUCTIONS

2 WHERE TO MOUNT THE MCD-1000

3 HOW TO HANDLE THE DISCS

5 PANEL DESCRIPTIONS — FRONT & BACK

9 CONNECTION INSTRUCTIONS

10 BOSE EQUALIZER MODULE CONNECTION

11 OPERATING THE MCD-1000

11 REMOTE CONTROL TERMINALS AND BACKUP SYSTEM HOOKUP

12 INTERLOCKING HOOKUP

13 OPERATING THE REMOTE CONTROL

13 BACKUP SYSTEM OPERATION

13 ROUTINE MAINTENANCE

14 TROUBLESHOOTING

14 WHAT YOU SHOULD DO

16 CUSTOMER SERVICES AND SHIPPING

specifications

POWER SOURCE	120 V AC, 50/60 Hz
POWER CONSUMPTION	55 W at rated output
OUTPUT POWER	25 W RMS at 4 ohms or 70 volts
STEREO LINE OUTPUT	0 dBV (1 volt), +/- 3 dB
MONO LNE OUTPUT	-6 dBV (0.5 volt), +/- 3 dB
AMP IN	0 dBV (50 k ohm)
DISTORTION	< 1% (1 kHz)
SIGNAL/NOISE RATIO	>70 dB
DISC DRIVE	Single disc, tray-type mechanism
DISC READING	Non-contact laser pickup
TRACK FORMAT	4 stereo tracks or 8 mono tracks
PLAYING TIME	1 hour/track
SIGNAL FORMAT	CDi/BGM format (4 bit ADPCM)
DATA	Mode 2, Form 1
AUDIO	Mode 2, Form 2 (level B)
SAMPLE RATE	37.8 kHz
REMOTE CONTROL	Momentary contact to ground
FINISH	Front panel injection mold
DIMENSIONS	16.53 in. W x 3.46 in. H x 12.72 in. D (420mmx88mmx323mm)
WEIGHT	15.41 lbs. (7 kg)
TEMPERATURE	32-113 deg. F (0-45 deg. C)
HUMIDITY	0-95% (no condensation)
PARTS INCLUDED	Operation/Installation Manual, spare fuse, eject stick & warranty registration card
SAFETY STANDARDS	UL, C/UL, CE
WARRANTY	12-months parts and labor from date of purchase

installation/safety instructions

1. Keep these instructions.
2. Heed all warnings.
3. Follow all instructions.
4. Do not use this apparatus near water.
5. Clean only with a damp cloth.
6. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade, or the third prong, are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
9. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.

CONTINUED

13. Refer all servicing to qualified service personal. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

14. Always use replacement fuses of the same rating. The MCD-1000 requires a GMA (5x20 mm) 1.6 amp/250 volt, fast acting fuse. You may substitute a GMA 1.5 amp/250 volt fuse if you are unable to find a 1.6 amp fuse. If the fuse continues to blow, there is a fault in your speaker wiring or in the player. Call your local Muzak Affiliate for service.

where to mount the MCD-1000

1. The MCD-1000 must be mounted horizontally on a secure, flat surface.

2. Locate where there is good air circulation, low dust, low humidity and normal room temperature.

3. Do not locate in direct sunlight or near heating or air conditioning units. Avoid kitchen areas where grease, smoke or steam may contact the player.

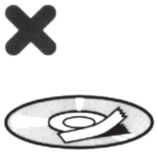
how to handle the CDs

1. Handle the disc by the center hole and/or edge.

2. Never touch the surface.

3. Do not scratch the surface.

4. Do not spill liquids on the disc.



5. Do not apply adhesive tape of any kind to the disc.

6. Keep the disc away from direct sunlight or excessive heat.

7. If the disc becomes dirty, clean it with a soft dry cloth or towel. Never use paper towels as they can scratch the surface.

panel descriptions

FRONT PANEL

1. FRONT DOORS

The front doors protect the player from dust and damage during play and should be closed when in use.

Open the doors to change a CD or set the volume.

2. DISC TRAY

Open the disc tray to load or change a CD. Place the disc in the tray with the label (printed) side up.

3. OPEN/CLOSE BUTTON

Pressing this button will open or close the disc tray.

4. LED INDICATORS

The LED (light emitting diode) indicators display the operational status of the player.

The **power LED** indicates the AC power on/off status.

The **play LED** will blink during disc initialization then will remain on during play. The **play LED** off condition indicates no disc is loaded or the player is in **standby** (stop mode).

The **shuffle LED** indicates the disc is in the shuffle play mode. See rear panel DIP switch description.

5. POWER

Pressing this button turns the AC power on and off.

6. PLAY/STOP

Pressing this button will stop the disc when in the **play** mode and will start the disc when in the **stop** mode.

NOTE: It is not necessary to press **play** when loading a disc if the **auto start dip switch** is set on. Auto start is the factory default setting. The disc will repeat continuously if the **disc repeat dip switch** is set on. Disc repeat is the factory default setting. See rear panel description for more details.

7. FORWARD

Pressing this button will change the player to the next music track. The **forward** button functions the same as a consumer CD player.

8. BACK

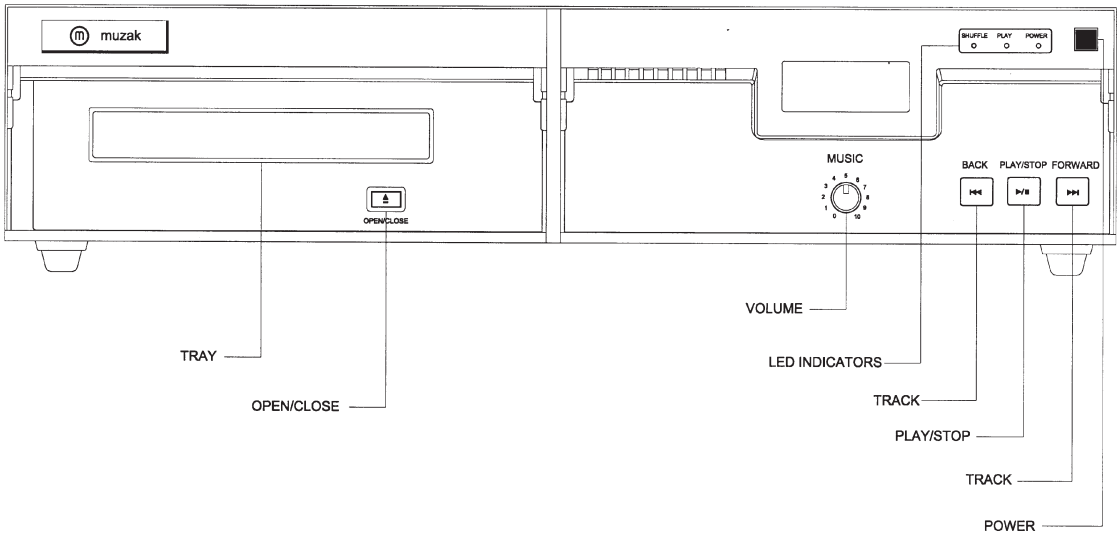
Pressing this **button once** will change the player to the beginning of the current music track.

Pressing this **button twice** in a row will change the player to the previous music track.

The **back** button functions the same as a consumer CD player.

9. MUSIC VOLUME

Turning this control sets the volume of the line outputs and amplifier outputs.



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REAR PANEL

1. STEREO OUT

This is for connection to a stereo amplifier. The right channel stereo out can also be used as a mono output.

2. MONO OUT

This is for conncection to a mono amplifier or the Bose equalizer module **eq in**.

NOTE: You can obtain a higher level mono output by connecting the right channel stereo jack *only*. See above.

3. AMP IN

This is for connection to the **EQ out** of the Bose equalizer module.

NOTE: Connecting the **amp in** breaks the signal path between the **mono out** and **amp in**.

4. DIP (dual inline package) SWITCH

Number 1 ON = **auto start** on disc loading.	OFF = No **auto start**.
Number 2 ON = **disc repeat** continuously.	OFF = No **disc repeat** (single play).
Number 3 ON = **shuffle play** enabled.	OFF = No **shuffle play**.
Numbers 4 - 8 = **unused**.	Leave in the OFF position.

NOTE: **Shuffle play** requires specially formatted CD's.

5. ACCESSORY MODULE

Insert the Bose equalizer module or other signal processing module here.

NOTE: The accessory module slot provides power supply connections *only*. Do not use **mic**, **line**, **aux** or other modules.

6. REMOTE TERMINAL STRIP

Start input is for starting the player with a remotely located switch.

Stop input is for stopping the player from a remotely located switch.

Interlock output is for connecting two players together for extended playback.

NOTES:

The remote **start/stop inputs** may be used to integrate the player into a central studio backup system for a distribution network. See *INTERLOCKING HOOKUP* on page 11.

7. AUDIO OUTPUT TERMINALS

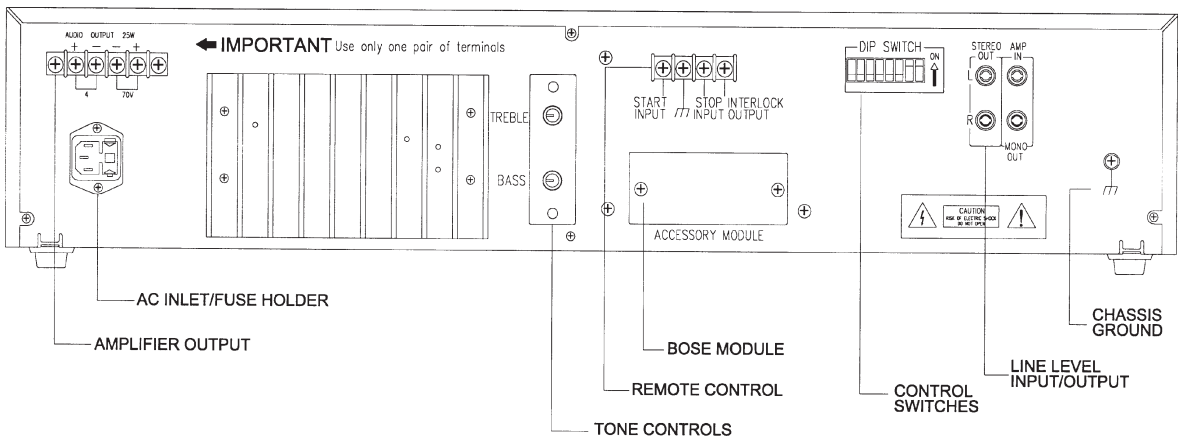
Connect these terminals to your speaker wires. See *Connection Instructions* on page 9 for more details.

- The 4 OHM terminals are for speakers without transformers which are labeled 4 or 8 ohms. Connect a 4 or 8 ohm speaker system to these terminals. The output power at 8 ohms is 15 watts.
- The 70 VOLT terminals are for speakers with transformers which are labeled 70 volts. Connect a 70 volt speaker system (200 ohms minimum) to these terminals.

8. AC INLET AND FUSEHOLDER

Connect the detachable AC power cord to this receptacle.

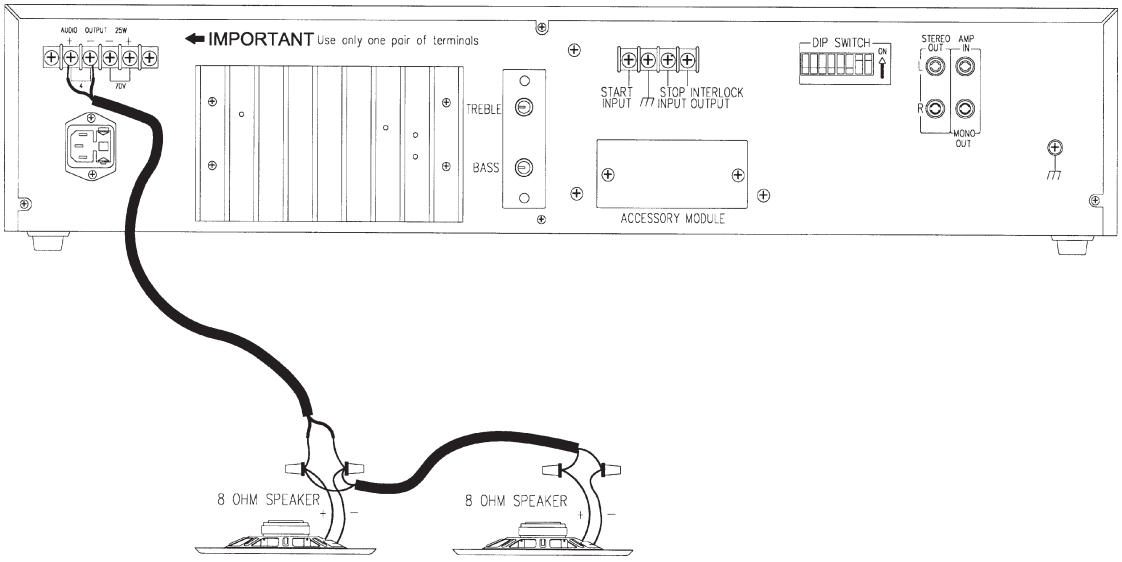
The fuse holder contains the AC line fuse. The AC power cord must be removed to gain access to the fuse. See *WHAT YOU SHOULD DO* on page 14 for details on fuse replacement.



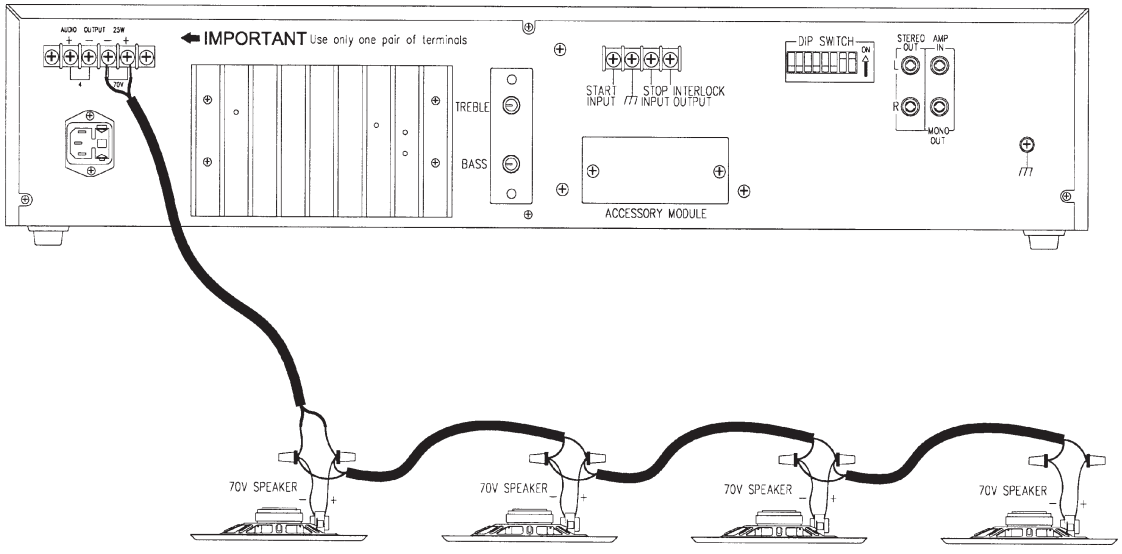
connection instructions

SPEAKER CONNECTION DIRECTLY TO THE MCD-1000

4 OHM CONNECTION:



70 VOLT CONNECTION:



SEPARATE AMPLIFIER CONNECTION TO THE MCD-1000

Larger speaker systems may require a higher wattage amplifier than the built-in 25-watt amplifier. A higher powered amplifier may be connected to the player's **stereo** or **mono out** jacks.

MONO OUT

Connect a patch cord from the **mono out** to the **aux** or **line input** of a separate mono amplifier. Most commercial sound systems are mono.

NOTE:

The **mono out** is a lower level than the **stereo out**. You may obtain a higher level mono output by connecting a patch cord to the **right channel stereo out** (no left channel connection).

STEREO OUT

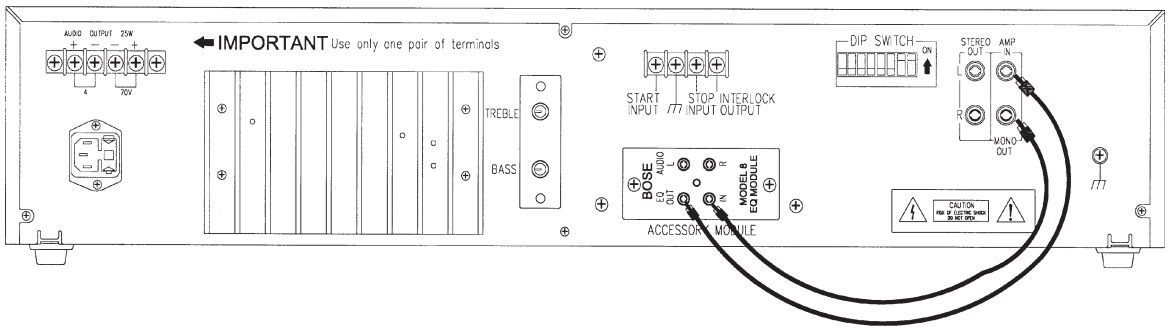
Connect a patch cord from the **stereo out** to the **aux** or **line input** of a separate stereo amplifier.

bose equalizer module connections

The Bose module is a monophonic equalizer specifically designed for Bose FreeSpace 8 or 25 speaker systems. The EQ8 module is for the smaller FreeSpace 8 speakers only. The EQ102 module is for FreeSpace 25, 32 and 102 speakers.

Connect the patch cord supplied with the Bose module from the **mono out** jack to the **EQ IN** jack of the Bose module and from the **EQ out** jack of the Bose module to the **amp in** jack of the MCD-1000.

The Bose module has no adjustments.



operating the mcd-1000

Operating the MCD-1000 is very similar to operating a home-type CD player, however Muzak discs are a **proprietary format** which will not play on consumer audio CD players. **Consumer audio CDs will not play on the MCD-1000.**

1. Attach the enclosed AC power cord to the AC inlet on the rear panel.
2. Plug the AC power cord into a grounded (3 prong) 120 volt AC outlet. DO NOT REMOVE THE ROUND GROUND PIN FROM THE AC PLUG.
3. Press the **power** button.
4. Press the **open/close** button to open the disc tray.
5. Place the CD in the tray **label side up**.
6. Press the **open/close** button to close the disc tray.
7. The Play LED will flash during disc initialization.
8. Music playback will begin in about five to ten seconds after disc initialization and the **Play** LED will remain on. If any LED remains flashing, see *Error Indicaations* on page 15.
9. Set the **music volume** for the desired volume level.
10. Set the rear panel **bass** and **treble** controls for the desired tone balance.

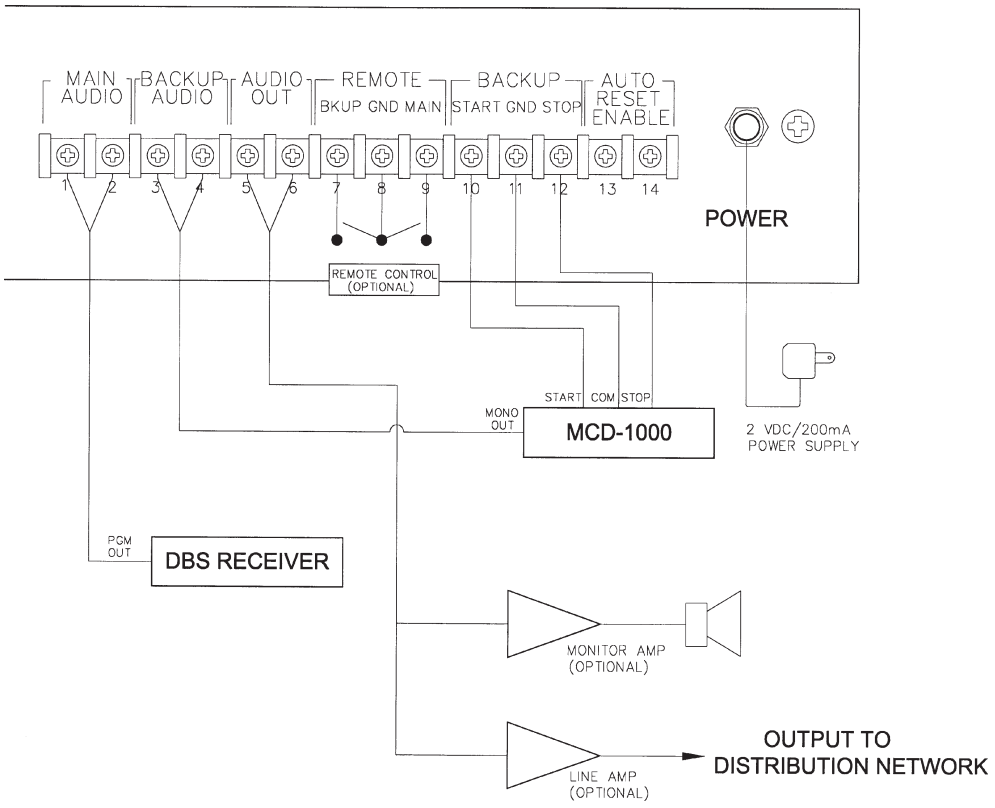
    CAUTION — TURNING THE BASS UP TO A HIGH VOLUME MAY CAUSE DISTORTION OR DAMAGE TO THE AMPLIFIER.
11. The CD will repeat continuously until the **stop** or **open/close** buttons are pressed.
12. Press the **forward** button to advance to the next music track.
13. Press the **back** button once to play the present music track over. Press the **back** button twice to start from the previous music track.

remote control terminals & backup system hookup

1. Connect a momentary contact switch or the **backup start output** of a Muzak SS-200 silence sensor between the MCD-1000 **start input** and **ground** terminals.

2. Connect a momentary contact switch or the **backup stop output** of the Muzak SS-200 silence sensor between the MCD-1000 **stop input** and **ground** terminals.

   NOTE: The auto start dip switch #1 must be off for remote control operation.



interlocking hookup

1. When interconnecting two players together, connect the **interlock output** of the first player to the **start input** of the second player.
2. Connect the **interlock output** of the second player to the **start input** of the first player to complete the loop.
3. Connect a mono patch cord from the **mono output** of the first player to **mono out** of the second player.
4. Connect the speaker system to the **audio output** terminals of the second unit.

NOTES:

The **auto start dip** switches (#1) must be off for **interlock** operation. The **disc repeat dip** switches (#2) must be off for **interlock** operation.

operating the remote control circuit

1. Set the MCD-1000 **auto start dip** switch (#1) to the **off** position. This prevents the player from playing when the **power** is switched on.
2. Press the remote momentary contact start switch to begin playing.
3. Press the remote momentary contact stop switch to stop playing.

NOTES:

- When stopping in the middle of a song or track and then returning to play mode, the player will start at the beginning of the last music track.
- When switching the MCD-100 **power** off, the player will start at the first song or track.

backup system operation

1. Set the SS-200 **Silence Sensor Main** to **Backup** timer according to your system requirements.
2. Set the SS-200 **Silence Sensor Backup** to **Main** timer according to your system requirements. The **Auto-Reset** jumper must be in place.
3. The SS-200 will send a start pulse to the MCD-1000 after the pre-set silence time from the DBS receiver.
4. The SS-200 will send a stop pulse to the MCD-1000 after the pre-set main audio time from the DBS receiver.

routine maintenance

1. The MCD-1000 requires no routine maintenance other than an occasional light dusting.
2. Dirty discs may be cleaned with a soft cloth towel or rag with a motion from the center outward. Do not wipe in a circular motion.

   CAUTION — DO NOT USE PAPER TOWELS AS THEY SCRATCH THE SURFACE OF THE CD.

NOTES:

- Commercially available products such as laser lens cleaning kits or stick-on rings are not recommended. They do little, if anything, to improve performance and may actually degrade performance.
- Never attempt to insert sharp metal objects in the disc tray.
- See the *WHAT YOU SHOULD DO* on page 15 for advice on removing jammed CDs.

troubleshooting

In the event of a problem with your MCD-1000, use the following troubleshooting chart to remedy or isolate the cause. If you are unable to remedy the problem, see *Important Telephone Numbers* on page 16 to call your local Affiliate or Muzak Customer Service.

SYMPTOM/PROBLEM	POSSIBLE CAUSE/SOLUTION
No power	AC cord loose or not plugged in
Blown fuse	See section below
Disc doesn't play	No CD in tray
Consumer audio disc	Not compatible with this system
Jammed CD	CD loaded upside down, dirty or damaged CD, or defective CD player
Low or no volume	Speaker wire disconnected or Volume control off
Mismatched output connection	See page 15
Blinking LEDs	
• Power & Shuffle	Incompatible consumer audio CD. Load Muzak CD
• Play	Fail to initialize disc, damaged disc or malfunctioning player
• Power & Shuffle	Fail to play music, damaged disc or malfunctioning player
• Power & Play	Disc tray failure. See next page: *REMOVING A JAMMED CD*

what you should do

FUSE REPLACEMENT PROCEDURE

1. Remove the AC power cord from the AC inlet on the rear panel.
2. The fuse holder is in a small compartment directly beside the AC power cord.
3. Pry the fuse holder open with your fingernail or small flat blade screwdriver.
4. Remove the blown fuse and replace it with a spare. This fuse is referred to as a GMA or 5x20 mm type fuse. Additional fuses may be obtained from your local Muzak Affiliate, or from your local Radio Shack store (part # 270-1051).

   CAUTION — DO NOT USE SLO-BLO OR TIME DELAY FUSES.

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REMOVING A JAMMED CD

1. If the CD is jammed and the disc tray will not open, locate the eject stick supplied with the spare fuse and warranty card. If you cannot locate the eject stick (looks like a small 90 degree allen wrench), you may use a large, straightened paper clip.
2. Switch the AC power off.
3. Place the tool into the small hole under the disc tray and push firmly.
4. Once the door begins to open, pull it open the rest of the way by hand.
5. Remove the CD.
6. Turn the AC power on again and push the **open/close** button to fully open the tray.
7. Try loading the CD again and press **play**.
8. If the CD or player will still not function, call your local Muzak Affiliate.

LOW OR DISTORTED VOLUME CAUSED BY MISMATCHED AUDIO OUTPUT CONNECTION

1. If your speaker wires are connected to the 4 ohm terminals, switch the **power** off and connect them to the 70 V terminals.
2. If your speaker wires are connected to the 70 V terminals, switch the **power** off and connect them to the 4 ohm terminals.
3. Switch the **power** on and play a CD.
4. If this fails to correct the problem, call your local Muzak Affiliate.

THE MCD-1000 PLAYS SPECIALLY ENCODED DISCS

1. The player will not play consumer audio CDs.
2. Muzak CDs will not play on consumer CD players.
3. THIS IS NOT A MALFUNCTION. See *ERROR INDICATIONS* on the next page.

ERROR INDICATIONS

1. **Power** and **shuffle** LEDs flashing slowly indicate an incompatible CD. The MCD-1000 will only play specially encoded Muzak CDs.
2. **Play** LED flashing slowly indicates a disc initialization problem. Check the CD for damage and replace it if necessary.
3. **Power** and **shuffle** LEDs flashing rapidly indicate a disc play problem. Check the CD for damage and replace it if necessary.
4. **Power** and **play** LEDs flashing alternately indicates a loading tray problem. Open the tray and reload the CD.

customer services and shipping

Should any problems occur with your MCD-1000, be sure to consult your local Muzak Affiliate or Muzak Headquarters before sending the deck anywhere for repair. This will help to identify any specific problems and possibly avoid the necessity of shipment altogether. If shipment to Muzak becomes necessary, please call Muzak Customer Services at **800 223.0686** for a **Return Authorization (RA**) number before shipping the player to Muzak. When packaging the deck for service, **be sure to enclose a complete description of any problems** with the player along with your:

- NAME
- RETURN ADDRESS
- PHONE NUMBER
- (RA) RETURN AUTHORIZATION NUMBER

Never ship the deck in any shipping carton other than the original or a replacement carton supplied by Muzak.

CAUTION — MAKE SURE THAT ALL THE PROTECTIVE SHIPPING LINERS ARE INSTALLED. DO NOT PACK THE DECK IN STYROFOAM "PEANUTS" OR SIMILAR LOOSE PACKING MATERIAL. THEY ALLOW THE PLAYER TO SHIFT AROUND IN SHIPPING.

Players damaged as a result of improper packaging will be the responsibility of the shipper. Avoid the use of carriers who do not offer proof of delivery or tracing services. Insure or declare the player for the full value.

For more information, please call Customer Service at 800 223.0686.

creating experiences with audio architecture

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